

ABSTRACT

A wireless type pre-paid IC card system enhances the convenience of users and assures the safe payment of tolls by vehicles including bikes when introduced for toll roads. This toll collecting system is composed of: a card processor that is arranged in a booth for the toll collection process and has an antenna unit for executing the card process through the wireless communication with IC cards, antenna units arranged at the left and right roadsides of the booth for executing the card process through the wireless communication with IC cards, a vehicle class discriminator for discriminating classes of vehicles entering into a traffic lane, and a traffic lane controller that selects an antenna unit to perform the card process according to a discriminated vehicle class and controls the card process.